

Translation

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY  
(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference <b>25519 WO</b>	FOR FURTHER ACTION		See Form PCT/IPEA/416																								
International application No. <b>PCT/EP2004/004703</b>	International filing date (day/month/year) <b>04.05.2004</b>	Priority date (day/month/year) <b>05.05.2003</b>																									
International Patent Classification (IPC) or national classification and IPC																											
<p>Applicant <b>SÜDZUCKER AKTIENGESELLSCHAFT MANNHEIM/OCHSENFURT</b></p>																											
<p>1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of <b>4</b> sheets, including this cover sheet.</p> <p>3. This report is also accompanied by ANNEXES, comprising:</p> <p>a. <input checked="" type="checkbox"/> (<i>sent to the applicant and to the International Bureau</i>) a total of <b>10</b> sheets, as follows:</p> <p><input checked="" type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).</p> <p><input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.</p> <p>b. <input type="checkbox"/> (<i>sent to the International Bureau only</i>) a total of (indicate type and number of electronic carrier(s)) _____, containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).</p> <p>4. This report contains indications relating to the following items:</p> <table> <tr> <td><input checked="" type="checkbox"/></td> <td>Box No. I</td> <td>Basis of the report</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Box No. II</td> <td>Priority</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Box No. III</td> <td>Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Box No. IV</td> <td>Lack of unity of invention</td> </tr> <tr> <td><input checked="" type="checkbox"/></td> <td>Box No. V</td> <td>Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Box No. VI</td> <td>Certain documents cited</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Box No. VII</td> <td>Certain defects in the international application</td> </tr> <tr> <td><input checked="" type="checkbox"/></td> <td>Box No. VIII</td> <td>Certain observations on the international application</td> </tr> </table>				<input checked="" type="checkbox"/>	Box No. I	Basis of the report	<input type="checkbox"/>	Box No. II	Priority	<input type="checkbox"/>	Box No. III	Non-establishment of opinion with regard to novelty, inventive step and industrial applicability	<input type="checkbox"/>	Box No. IV	Lack of unity of invention	<input checked="" type="checkbox"/>	Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement	<input type="checkbox"/>	Box No. VI	Certain documents cited	<input type="checkbox"/>	Box No. VII	Certain defects in the international application	<input checked="" type="checkbox"/>	Box No. VIII	Certain observations on the international application
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Date of submission of the demand		Date of completion of this report																									
Name and mailing address of the IPEA/EP		Authorized officer																									
Facsimile No.		Telephone No.																									

## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/EP2004/004703

Box No. I	Basis of the report
<p>1. With regard to the language, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.</p> <p><input type="checkbox"/> This report is based on translations from the original language into the following language _____, which is the language of a translation furnished for the purposes of:</p> <p><input type="checkbox"/> international search (Rule 12.3 and 23.1(b))  <input type="checkbox"/> publication of the international application (Rule 12.4)  <input type="checkbox"/> international preliminary examination (Rule 55.2 and/or 55.3)</p>	
<p>2. With regard to the elements of the international application, this report is based on (replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report):</p> <p><input type="checkbox"/> the international application as originally filed/furnished  <input checked="" type="checkbox"/> the description:</p> <p>pages <u>1-61</u> _____ as originally filed/furnished</p> <p>pages* _____ received by this Authority on _____</p> <p>pages* _____ received by this Authority on _____</p> <p><input checked="" type="checkbox"/> the claims:</p> <p>nos. _____ as originally filed/furnished</p> <p>nos.* _____ as amended (together with any statement) under Article 19  <u>24.02.2005 with the letter of 23.02.2005</u></p> <p>nos.* <u>1-72</u> received by this Authority on _____</p> <p>nos.* _____ received by this Authority on _____</p> <p><input checked="" type="checkbox"/> the drawings:</p> <p>sheets <u>1/5-5/5</u> _____ as originally filed/furnished</p> <p>sheets* _____ received by this Authority on _____</p> <p>sheets* _____ received by this Authority on _____</p> <p><input type="checkbox"/> a sequence listing and/or any related table(s) – see Supplemental Box Relating to Sequence Listing.</p>	
<p>3. <input type="checkbox"/> The amendments have resulted in the cancellation of:</p> <p><input type="checkbox"/> the description, pages _____  <input type="checkbox"/> the claims, nos. _____  <input type="checkbox"/> the drawings, sheets/figs _____  <input type="checkbox"/> the sequence listing (specify): _____  <input type="checkbox"/> any table(s) related to sequence listing (specify): _____</p>	
<p>4. <input type="checkbox"/> This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).</p> <p><input type="checkbox"/> the description, pages _____  <input type="checkbox"/> the claims, nos. _____  <input type="checkbox"/> the drawings, sheets/figs _____  <input type="checkbox"/> the sequence listing (specify): _____  <input type="checkbox"/> any table(s) related to sequence listing (specify): _____</p>	

\* If item 4 applies, some or all of those sheets may be marked "superseded."

## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.  
PCT/EP2004/004703

Box No. V <b>Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</b>																			
<p>1. Statement</p> <table> <tr> <td>Novelty (N)</td> <td>Claims <u>1-44, 47-72</u></td> <td>YES</td> </tr> <tr> <td></td> <td>Claims <u>45, 46</u></td> <td>NO</td> </tr> <tr> <td>Inventive step (IS)</td> <td>Claims <u>1-22, 47-62</u></td> <td>YES</td> </tr> <tr> <td></td> <td>Claims <u>23-44, 63-72</u></td> <td>NO</td> </tr> <tr> <td>Industrial applicability (IA)</td> <td>Claims <u>1-72</u></td> <td>YES</td> </tr> <tr> <td></td> <td>Claims _____</td> <td>NO</td> </tr> </table>		Novelty (N)	Claims <u>1-44, 47-72</u>	YES		Claims <u>45, 46</u>	NO	Inventive step (IS)	Claims <u>1-22, 47-62</u>	YES		Claims <u>23-44, 63-72</u>	NO	Industrial applicability (IA)	Claims <u>1-72</u>	YES		Claims _____	NO
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<p>2. Citations and explanations (Rule 70.7)</p> <p>1. As conceded by the applicant himself in the introductory part of the description, lactobionic acid is a substance which has long been known. The same is true of maltobionic acid. Claims 45 and 46, which are directed to these substances, are therefore not novel.</p> <p>2. The novelty of the subject matter of the remaining claims of the application is recognised.</p> <p>3.1 Claims 1 and 47 are inventive in relation to D1 because the applicant could demonstrate that the catalyst claimed therein is more stable than the prior art catalyst, and because this discovery appears to be surprising.</p> <p>3.2 The process as per claims 23 and 63 is not inventive for the following reasons:</p> <p>The difference from the prior art document D1 consists only in a change of starting material. However, a person skilled in the art could have recognised at the filing date that the process described in D1 could be analogously applied to disaccharides and other oligosaccharides.</p>																			

**INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY**

International application No.

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**Box No. VIII      Certain observations on the international application**

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

1. Claims 1 and 23 overlap and define in the overlapping range the claimed invention with different features. Thus, according to claim 1, the use of a metal oxide substrate for the catalyst is necessary to carry out the invention, while claim 23 also admits other substrate materials. The set of claims in its totality is therefore unclear.
  
2. The use claims 47 and 63 should be regarded as process claims and relate to the same subject matter as the actual process claims 1 and 23. However, they do not contain all their features. The set of claims in its totality is thus also unclear for this reason.